

THAT WHICH IS CLAIMED:

1. A method for preparing a pathogen inactivation treatment-ready blood product comprising:

providing a container system comprising at least an interim container and a liquid synthetic medium container, wherein said medium container is in flow communication with said interim container;

providing a source container including a quantity of blood or a blood component, separate from the container system;

placing said source container and said interim container in flow communication,

transferring said blood or blood component to said interim container;

combining a selected quantity of said blood or blood component with a selected quantity of said synthetic medium.

2. The method of Claim 1 wherein said blood component substantially comprises red blood cells.

3. The method of Claim 1 wherein said blood component substantially comprises platelets and plasma.

4. The method of Claim 1 wherein said blood component substantially comprises plasma.

5. The method of Claim 1 comprising establishing the quantity of said synthetic medium required for combination with said blood component to achieve a selected ratio of blood component to synthetic medium prior to said transferring.

6. The method of Claim 1 in which the step of combining is carried out by transferring said synthetic medium directly from said medium container through the respective flow communication into said interim container.

7. The method of Claim 1 in which said step of placing said source container and interim container in communication is carried out in an essentially sterile

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manner.

8. The method of Claim 7 in which a sterile connection device is employed.

9. The method of Claim 1 further comprising:

centrifuging said source container to obtain a separation of a blood component from an aqueous solution and removing at least a portion of said solution prior to combining said blood component with said synthetic medium.

10. The method of Claim 9 further comprising determining the quantity of said aqueous solution removed or determining in the quantity of said synthetic medium to be combined with said blood component.

11. A method for preparing a blood platelet product including platelets, a synthetic storage medium and plasma comprising:

providing a container system comprising an interim container and a container including a liquid synthetic platelet storage medium, wherein said medium container is in flow communication with said interim container;

providing a source container including a quantity of platelets suspended in plasma;

attaching said source container to said interim container;

transferring said platelets suspended in plasma to said interim container;

combining said platelets suspended in plasma with said synthetic storage medium to achieve a selected ratio of synthetic storage medium and plasma.

12. The method of Claim 11 comprising:

providing a container system further comprising an excess fluid container;

separating said platelets into concentrated platelets and plasma after transferring said platelets to said interim container, but before combining said platelets with said storage medium;

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transferring a selected amount of said separated plasma to said excess fluid container;

introducing a selected amount of said storage medium into said interim container; and

transferring, if necessary, plasma from said excess fluid container to said interim container to achieve said relative quantities.

13. The method of Claim 12 comprising transferring approximately 250-350 ml of 3×10^{11} platelets to said interim container; and

transferring approximately 180-200 ml of plasma to said excess fluid container.

14. The method of Claim 13 comprising adding approximately 180 ml of synthetic storage medium to said concentrated platelets.

15. The method of Claim 11 comprising providing a container including a synthetic storage medium comprising approximately sodium chloride, sodium citrate, sodium acetate and sodium phosphate.

16. The method of Claim 15 comprising providing a container including a synthetic storage medium comprising approximately 45-120 mM sodium chloride, approximately 5-15 mM sodium citrate, approximately 20-40 mM sodium acetate and approximately 20-40 mM sodium phosphate.

17. The method of Claim 15 comprising providing a container including a synthetic storage medium comprising approximately 77.4 mM sodium chloride, approximately 10.8 mM sodium citrate, approximately 32.5 mM sodium acetate and approximately 28.2 mM sodium phosphate.

18. The method of Claim 11 further comprising attaching said interim container to a disposable pathogen inactivation processing set after said combining step.

19. The method of Claim 11 wherein said relative quantities of synthetic storage medium and platelets suspended in plasma is approximately 60-70% storage medium

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to 30-40% platelets in plasma.

20. A container system for preparing a blood platelet product including platelets, a synthetic storage medium and plasma comprising:

an empty interim container in flow communication with a container including a synthetic storage medium comprising sodium chloride, sodium citrate, sodium acetate and sodium phosphate;

a flow control device associated with said flow path; said interim container being adapted for sterile connection to a platelet source comprising at least one therapeutic dose of platelets.

21. The container system of Claim 20 further comprising an empty excess fluid container and a flow path providing for flow communication between said excess fluid and interim container.

22. The container system of Claim 20 wherein said synthetic storage medium comprises approximately 45-120 mM sodium chloride, approximately 5-15 mM sodium citrate, approximately 20-40 mM sodium acetate and approximately 20-40 mM sodium phosphate.

23. The container system of Claim 20 wherein said synthetic storage medium comprises approximately 77.4 mM sodium chloride, approximately 10.8 mM sodium citrate, approximately 32.5 mM sodium acetate and approximately 28.2 mM sodium phosphate.

24. The container system of Claim 20 wherein said interim container comprises a flow path for establishing flow communication with a disposable pathogen inactivation processing set.

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